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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/581,604	06/15/2000	HIROKAZU TANAKA	1217-001125	9815

7590

08/27/2003

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436 SEVENTH AVENUE  
PITTSBURGH, PA 15219-1818

EXAMINER

AHMED, SHEEBA

ART UNIT

PAPER NUMBER

1773

19

DATE MAILED: 08/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

AS-19

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/581,604	TANAKA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Sheeba Ahmed	1773	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 June 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Response to Amendment*

1. Applicants Request for Reconsideration and a Declaration under 37 CFR 1.132, dated June 12, 2003 (Paper No. 17 and 18), has been received and entered in the above-identified application. **Claims 1-14 are now pending.**

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kayanoki (US 5,963,373).

Kayanoki disclose a plastic lens comprising a plastic lens substrate **(corresponding to the substrate of the claimed invention)** and a hard coating applied thereon. The hard coating **(corresponding to the coating liquid and the hard coat film of the claimed invention)** comprises fine particles of a composite oxide **(corresponding to the composite metal oxide particles of the claimed invention)** having an average particle diameter in the range of from 1 to 100 nm **(thus meeting the particle size limitations)** and an epoxy group containing silicon compound **(corresponding to the matrix-forming component of the claimed invention)**. The composite oxide is preferably composed of iron oxide, titanium oxide and a silica

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component. The weight ratio of the iron oxide to the titanium oxide is in the range of 0.005 to 1.0 and the weight ratio of silica to the sum of the iron oxide and titanium oxide is in the range of 0.001 to 1.0. The fine particles are surface treated with an organosilicon compound (***thus meeting the limitations of claims 3 and 6***) (Column 7, lines 25-67 and Column 9, lines 28-30). The hard coating may be provided with a monolayered or multi-layered anti-reflection film (***thus meeting the limitations of claims 5 and 10-12***) (Column 11, lines 38-43).

Kayanoki does not specifically disclose that the weight ratio of the iron oxide to the titanium oxide may be 0.0005 to less than 0.005 (*as recited in independent claims 1 and 2*) or 0.001 to 0.0045 (*as recited in dependent claims 13 and 14*).

However, a prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties. *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985). In this case, it would have been obvious to one having ordinary skill in the art to have expected the same properties (i.e., surface hardness, appearance, adhesion properties) for a hard coat film comprising composite metal oxide particles of iron oxide and titanium oxide wherein the weight ratio of the iron oxide to the titanium oxide is 0.0045 or 0.0045 to less than 0.005.

### ***Response to Arguments***

3. Applicant's arguments filed on June 12, 2003 have been fully considered but they are not persuasive. Furthermore, the Declaration under 37 CFR 1.132 filed on June 12,

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2003 (Paper No. 18) is insufficient to overcome the rejection of claims 1-14 based upon Kayanoki (US 5,963,373) as set forth in Paragraph No. 2 of this Office action. The Examiner had previously taken the position that the experimental results that are given in Table A of the previously filed Declaration (Paper No. 14) only showed two data points (1/499 and 1/999) within the claimed range and hence such a showing is not commensurate with the scope of the claimed range of the weight ratio of the iron oxide to the titanium oxide. Specifically, the Examiner took the position that the range of data exemplified in the showing was not commensurate with the entire range claimed, i.e., there were no data points towards the lower limit of the weight ratio range (i.e., towards 0.0005) and towards the upper limit of the weight ratio range (i.e., towards 0.0045 to less than 0.005).

The Declaration under 37 CFR 1.132 filed on June 12, 2003 (Paper No. 18) now provides new data points at 0.0005 (the claimed lower limit), 0.0015 (a data point within the claimed range), and 0.0048 (a data point towards the upper limit of the claimed range) however the graphical data relating to Photochromism and Water Resistance given on Page 4 of the Request for Reconsideration indicates data points at and beyond 0.005 also show water resistance and no evidence of photochromism. Furthermore, the Applicants state in lines 3-5 of Page 4 of the Request for Reconsideration that "composite metal oxides having the limited weight ratio (**0.0005 to 0.005**) of iron oxide to titanium oxide of the present invention is free from photochromism" and hence the Applicants have failed to show that one would **NOT** have expected the same properties for a hard coat film comprising composite metal oxide particles of iron oxide and

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titanium oxide wherein the weight ratio of the iron oxide to the titanium oxide is 0.0045 or 0.0045 to less than 0.005.

### ***Conclusion***

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheeba Ahmed whose telephone number is (703)305-0594. The examiner can normally be reached on Mondays and Thursdays from 8am to 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Thibodeau can be reached on (703)308-2367. The fax phone numbers for the organization where this application or proceeding is assigned are

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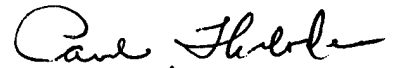
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(703)305-5408 for regular communications and (703)305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)306-5665.



Sheeba Ahmed  
August 18, 2003



Paul Thibodeau  
Supervisory Patent Examiner  
Technology Center 1700